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November 16, 2015

Justin Modigliani, P.E., Chief
Compliance Section
Water Compliance Branch
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Re: ***Essroc San Juan Cement***
Compliance Evaluation Inspection, May 29, 2015 and
Consent Decree (3 :09-cv-0 1578)
Individual Permit No. PR0001163 and MSGP 2008 Tracking No. PRR05BJ45

Dear Mr. Modigliani:

As requested in your last correspondence, we are hereby submitting our response to items included on the CEI report dated 09/11/2015 and that was received in our facility by 09/25/2015. The report was generated after an audit performed in our facility on May 29th, 2015 related to the compliance with Essroc San Juan's (ESJ) NPDES and MSGP permits of reference.

A. Non-Compliance Items

1. Table 1 with NPDES Permit effluent violations for the period June 2013 to June 2015.

   Table 1 included effluent violations for ten (10) different parameters included in our permit. More than 80% of the total of the violations on Table 1 are related to four (4) of those parameters; coliforms (total and fecal), suspended solids, color and surfactants.

   Coliforms:

   Generally speaking, coliform levels on ESJ's Outfall 001 are affected by three (3) principal components. One of those components is internal and the other two are external:

   a. Natural component (External)
   b. Receiving stream from neighbor Guarisco community (External)
   c. Operation of septic systems at the plant (Internal)

   It is our belief that coliform outfall levels are mostly affected by the external components. In that respect, ESJ has performed studies to document the precedence of coliform bacteria on its outfall. Those studies have been submitted to EQB and EPA as well and the results and conclusions have been also discussed with relevant personnel from each agency.

Only the internal component can be effectively controlled by means of BMP's implemented by ESJ. However, as requested by the original Consent Decree, ESJ has prepared a Plan of Action (POA) in order to achieve compliance with the coliform limit included on its permit. Details on initiatives to address with each one of the components affecting coliform levels are discussed in more detail on the POA. A copy of the Coliform POA is included in **Attachment A** of this document.

Total Suspended Solids

As you may know, an activity that is inherent to every cement manufacturing operation is the handling, processing and storage of mineral materials that, in most cases, have been extracted from a nearby quarry. In addition, intermediate and finish products from our operation consist of granulated (and sometimes pulverized) materials that can be easily picked off by stormwater runoff if not appropriately handled and stored. Thus for every cement plant there is always a huge challenge to maintain low levels on its stormawter discharges.

At ESJ there has always been conscious operation regarding the control of sediments on runoff streams. Most of the materials are stored inside roofed buildings (raw materials and clinker) or completely enclosed structures like silos (raw meal and cement). For those materials stored in piles outside there is a requirement to be covered by berms and, in some cases, tarps are used to cover the piles to prevent sediment runoff. Those practices help contain and reduce any sediment that may be dragged by stormwater runoff. In addition, two settling ponds serve as our main BMP to collect sediments from stormwater runoff. Additional sediment collection areas are available inside the plant's drain channels.

Since May 2014, eight (8) samples (out of 37) have exceeded the 50 mg/L limit on ESJ's effluent. On 2015, only four (4) samples have exceeded the TSS limit being the last back in June. After June 22nd, ten (10) additional samples have being collected at ESJ's Outfall 001 all showing results below the 50 mg/L limit. However, as required by the consent decree ESJ has prepared a Plan of Action to maintain compliance with the TSS limit. TSS plan of action is included on Attachment B of this document and includes details on actions taken to control TSS levels. A maintenance program for the plant's drain channels and a different approach to the management of water collected at the plant's settling ponds have been included as part of ESJ's TSS POA.

Color

Stormwater runoff drain channels and settling ponds at ESJ are open to the environment. ESJ's Dorado plant is surrounded by some heavy vegetation areas. Those two conditions make very easy that vegetation debris gain access to the drain channels, settling ponds and also to our Lagoon Enhancement System (LES). The LES happens to consist of fourteen (14) filtering stations on a channel between Lagoon 1 and Lagoon 2. Vegetative debris collected on ponds and channel affect the quality of the color of ESJ's effluent since some leafs that goes into the channels and ponds may decompose changing the color of water. We understand that decomposing vegetation is the main element affecting this parameter.

Although it is practically impossible to keep leafs and vegetation to go into ESJ's stormwater conveying system, we have already made changes to some old practices to prevent vegetative debris to reach the stormwater channels and ponds specially from landscaping operations. ESJ

will keep its maintenance practices to ensure channels and ponds are free of foreign materials that may affect its outfall quality.

Surfactants

Since May 2014, about 5% of the samples analyzed (2 out of 36) have exceeded the surfactants limit on ESJ's effluent. Surfactant levels on ESJ's outfall are strongly affected by the external components on the stream from the Guarisco community. Guarisco residents have connected discharges from household activities like sinks and wash machines, among other, to the channel that drains into ESJ's Lagoon 2.

Although actual values have not been bad at all, the elimination of the Guarisco channel can definitely improve the quality of ESJ's outfall.

Copper, pH, BOD and Sulfates

The sum of the exceedances from those four parameters represents less than 20% of the total violations included in Table 1. ESJ see those as specific isolated events that are also strongly affected by the same external component as the surfactants. Exceedances of those parameters are not indicative that a process practice at the plant that may be affecting effluent levels. However, ESJ will keep watching and in case there is a signal that may suggest a pattern is developing, additional efforts will be assigned to take care of any internal component affecting those.

2. *"As described in Paragraph 13 .c and d of the Consent Decree, violations of fecal or total coliform limitations trigger the requirement to submit a Plan of Action. The Plan of Action requires Essroc to achieve compliance with these parameters 30 days after the due date for the Discharge Monitoring Report that showed the violations (provided the violations occurred November 2010 or thereafter). Essroc's Quarterly Report dated July 30, 2015 indicated that a Plan of Action for the coliform issue would be submitted in the third calendar quarter of 2015. Under the Consent Decree a Plan of Action should have already have been submitted.*

   Note, that based on monitoring conducted by Essroc at monitoring point L21, there are levels of coliform that exceed the permit limits flowing from the gabion channel. Such exceedances occurred without the influence of the unsewered community (Guarisco Conununity) that flows into Pond No. 2 from a different influent pipe. See Table 1 above for some monitoring data for monitoring point L2."

   A Coliform Plan of Action is included on **Attachment A** of this document.

3. *"Essroc's rain gauge was said not to be working and instead were using the National Oceanic and Atmospheric Administration (NOAA) website to obtain precipitation data for the plant. As required by paragraph 14.a of the Consent Decree, Essroc is required to conduct precipitation monitoring on site and is therefore not complying with its obligations under the CD. Also, EPA was on-site on May 29. 20 15 when there was an afternoon rain event. Essroc's precipitation log included in its Quarterly Report dated July 30, 2015 indicates that there was 0" of rain fall on May 29 and 1.63"on May 30, 2015. Please explain this discrepancy."*

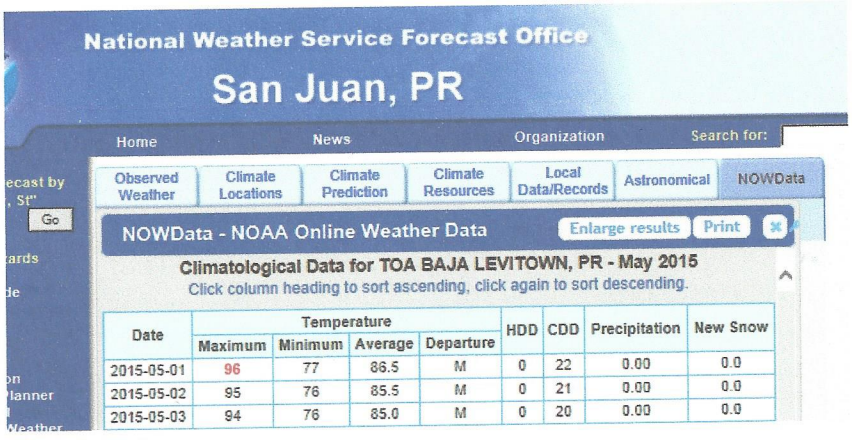
On 2012 ESJ acquired a weather station to be able to monitor rain data at the site. For unknown reasons the weather station was not installed before. The weather station was installed on top of the Technical Resources building on early August this year and was put in operation on August 14th. Rain data submitted on DMR reports after August 14th is data collected at the site by the weather station. We are including a picture of the weather station.

Weather Station at Essroc San Juan

Regarding rain data for May 29th and 30th, although there was rain at the site on May 29th we didn't have at that time a way to measure rainfall at the site. As we state in our DMR reports, rain data was taken from the NOAA site, specifically from the Toa Baja, Levitown station. Levitown is located about 8.5 miles north-east of ESJ site. Without having s better source for rainfall data, ESJ kept using this as its source for the most representative rain data at the moment.

We are including screen shots of NOAA's site data for the month of May 2015.

http://w2.weather.gov/climate/xmacis.php?wfo=sju



Date	Temperature				HDD	CDD	Precipitation	New Snow
	Maximum	Minimum	Average	Departure				
2015-05-01	96	77	86.5	M	0	22	0.00	0.0
2015-05-02	95	76	85.5	M	0	21	0.00	0.0
2015-05-03	94	76	85.0	M	0	20	0.00	0.0

Screen shot from NOOA's site

2015-05-23	92	79	85.5	M	0	21	0.00	0.0
2015-05-24	90	76	83.0	M	0	18	0.00	0.0
2015-05-25	89	77	83.0	M	0	18	0.00	0.0
2015-05-26	89	74	81.5	M	0	17	0.20	M
2015-05-27	89	75	82.0	M	0	17	0.00	0.0
2015-05-28	89	75	82.0	M	0	17	0.00	0.0
2015-05-29	89	76	82.5	M	0	18	0.00	M
2015-05-30	89	74	81.5	M	0	17	1.63	M
2015-05-31	88	76	82.0	M	0	17	0.19	M
Sum	2795	2351	-	-	0	565	4.02	0.0
Average	90.2	75.8	83.0	M	-	-	-	-
Normal	M	M	M	-	M	M	M	M

Observations for each day cover the 24 hours ending at the time given below (Local Standard Time).

Screen shot from NOOA's site

4. *"Paragraph 15.a of the CD requires a Plan of Action to be submitted if there are 3 violations within 3 months for an Enhanced Monitoring Parameter. The Permit Limit for Total Suspended Solids ("TSS") at Outfall 001 is 50 mg/L. Based on the DMRs and/or sampling data contained in the quarterly reports, there were TSS violations as shown in the table below. Based on paragraph 15.b of the CD a Plan of Action to address the 3 TSS violations in April and June 2015 is due on September 27, 2015. However, based upon 3 TSS exceedances in October and December 2014 as well as 1 TSS violation in January 2015 a Plan of Action for TSS, under paragraph 15 of the CD, should have been submitted on March 29, 2015. During the May 29, 2015 afternoon rainfall, there were turbid flows in stormwater channels, such as the channel near the packing house. See paragraph B.1 in the Areas of Concern for more details."*

   As we have explained in Item 1 above, ESJ is constantly working to maintain and improve its control of erosion at the plant. From the results of our samples, and not only focusing on the exccedances, we know our actions have been effective. The last TSS exceedance was back in June and the average for 2015 samples so far is 31.6 mg/L. However, we know there are things we can do better and are including them on the TSS Plan of Action on **Attachment B** on this document.

B. Areas of Concern

1. *"Review of Essroc' s 2013 Stormwater Best Management Practices ("BMP") Plan indicates that:...."*

   ESJ's SWPP and BMP was reviewed and updated in August this year prior to submitting the e-NOI to look coverage under MSGP 2015. An electronic copy of the updated SWPPP will be e-mailed to Eng. Lantner.

   Cleaning of the stormwater drain channels will be completed before the end of the year.

   ESJ will perform at least one cleaning of the stormwater drain channels every year. Additional maintenance/cleaning of the channels will be scheduled as needed.

2. *"As shown in photos 2711 to 2714, there are potential water line leaks in the area shown in the photos, as well as behind the office building shown in photo 2751. Please identify if this is*

a water line leak and confirm that this water is permitted to discharge to Outfall 001 (PR00001163)."

ESJ dug the area near the box and couldn't find any leaking line that could be generating the water flow. The box looks to be an old electrical junction box and nothing related to water or any fluid. Water flow seems to be ground water coming out through that specific spot. However, on the following weeks after the inspection the water flow can no longer be seen going into the stormwater channel.

Included a picture of the junction box during the inspection.

Old Electrical Junction Box

3. *"As shown in photo 2717, there is a high level of wastewater in this sanitary wastewater tank. This wastewater was thought to overflow into the adjacent tank shown in photo 2716. If the two tanks are not connected, please ensure that the wastewater tank shown in photo 2717 is emptied and monitored to ensure that it does not overflow."*

ESJ operates a program to service all septic systems at the site. A external contractor perform the service and dispose collected sanitary water to one of authorized PRASA treatment plants (Barceloneta, Dorado or Puerto Nuevo). This information is part of the quarterly reports submitted by ESJ. So far this year ESJ has disposed of a total of 224,000gallons of sanitary water. The tank referenced on this item is included on this program.

4. *"The ultrasonic head sensor on the weir at Outfall 001 is located about 18 to 21" from the weir plate. Based on Appendix 0 of the 2004 NPDES Compliance Inspection Manual, the head sensor should be four (4) times the maximum head length (Hmax, but mistakenly written as Hmz) upstream of the weir. However, since Essroc does not have a limit on flow or mass loading limitations in its Permit, no action is necessary at this time. Figure 1 shows the Profile and Nomenclature of Sharp-Crested Weirs."*

This information was forwarded to the head sensor manufacturer and we are waiting for his comments. We will keep you posted on the manufacturer's comments on this item. However,

placing the senor at a distance 4 times the maximum head length (32 inches for ESJ) would require it to be at a distance of 128 inches (or 10 ft 8 in) from the weir. This will make it extremely unpractical for maintenance and service of the sensor given the fact that the outfall at ESJ is not from a channel but from a small pond. If we move the sensor as per recommendations on EPA's NPDES manual the sensor will be placed basically over the center of the discharge pond.

5. *"As shown in photographs 721 and 722, the cover on the ultrasonic sensor was missing and was covered with duct tape. The unit was working, but a new cover was said to be on order. Please provide to the EPA the status of the replacement of the ultrasonic sensor cover."*

Cover replacements for the sensor were ordered, received and replaced. In addition, ESJ built a gate at the sensor area to protect it from any outside vandalism. The gate remains locked at all times and a key is available with the security guard and at the environmental engineer's office.

Ultrasonic sensor with gate

Lock at ultrasonic sensor gate

6. *"As shown in Photos 731 to 737, there is a channel that conveys wastewater from a residential area (Guarisco Community) to Essroc's Pond No.2 which is tributary to Outfall 001...*

Essroc should also consider other alternatives such as potentially obtaining sanitary sewer service for the Essroc Plant along with the adjacent unsewered community. For example, there is another community (Los Montes Residential Development) located within 1,000 feet of Guarisco Community that has sanitary sewer service."

ESJ has made studies in the past to evaluate alternatives to dispose it sanitary waters. Alternatives evaluated were; a. Connecting to Los Montes sanitary line, b. Connecting to a manhole at Road No.2 to Vega Alta Plant, and; c. Connecting directly to PRASA's Dorado plant. At the moment of the study all three options were discarded because of being either technically or economically unfeasible. From the 3 options, the more realistic was connecting to Los Montes sanitary line but for the moment it is not legally attainable since Los Montes sanitary line is still held as private because it was originally built by the developer.

On recent communications with the Dorado municipality ESJ found that there are no plans on the near future for the construction of any sanitary lines for the adjacent Guarisco community either.

ESJ will keep looking on the way to solve this problem in the most practical and cost efficient way.

7. *"As shown in photos 772, 773, 776 and 777, during the inspection there was turbid water entering Pond No. 2 near the outlet prior to flowing under a roadway and flowing into a small pond prior to Outfall 001. The turbid stormwater was coming from a dirt roadway that runs along the northern and western side of Pond No.2 and along the western side of the gabion channel. Essroc should implement additional stormwater BMPs to address this turbid storm water flow since at the point of entry into Pond 2 it has very little time to settle out*

before discharging to Outfall 001. As shown in Tables 1 and 2 above, there have been TSS violations in June, April and January of2015 as well as October and December 2014."

ESJ has already started to modify areas around the settling ponds to prevent as much as possible that runoff may gain access to the outfall point without entering any of the settling ponds. We are including pictures of some of the modifications that will help to prevent water to discharge without going to the settling ponds.

Modification of Lagoon 2 to Outfall 001

Swale to route runoff to Lagoon 2

8. *"The Laboratory Report for October 13, 2014 (see Attachment 2) reported fecal coliform results of 5000; 5000; 2740 (geometric mean); 3500, 5000. Please explain if there was a fifth sample result that was not reported in the DMR, or exactly how the geometric mean was calculated for this sample."*

Items 8, 9 and 16 were forwarded to Mr. Victor Pagan from Sanco Labs for comments. As soon as they are received we will submit them accordingly.

9. *"As shown in the table of violations in Table 1 above, many total coliform results are reported as > 16,000. Essroc should instruct its laboratory to conduct additional dilutions so it can better quantify the total coliform concentrations when they are greater than 16,000."*

Items 8, 9 and 16 were forwarded to Mr. Victor Pagan from Sanco Labs for comments. As soon as they are received we will submit them accordingly.

10. *"EPA could not locate the quarterly reports required under the Consent Decree for the period October 2013 through March 2014. Please provide these two (2) quarterly reports to EPA."*

ESJ is looking for the requested reports. An electronic copy will be e-mailed to Eng. Lantner when we found them.

11. *"Based upon benchmark sampling at Stormwater Outfalls No. 1 and No. 2 included in Table 3 (next page), annual averages are lower than the 100 mg/L TSS benchmark, however note that there was a discharge of 404 mg/L of TSS in the June 2015 stormwater sample at Stormwater Outfall No. 1. Please explain what Essroc has done or will do at Stormwater Outfall No. 1 to control TSS concentrations at SW Outfall No. 1 to avoid a an annual average benchmark exceedance."*

So far, the average value for TSS at DP-001 is 78 mg/l including results received up to the September sample. Although samples have been already taken for October and November and results have not been received yet, after visual inspection of those samples, we understand results will not adversely affect the yearly average so far. The result for the September sample was reported as 48 mg/l by Sanco Labs.

Due to the dry season we experimented during the months from May through October, there were no rain events that generated discharge on the months of July and August on quarry outfalls DP-001 and DP-002.

Control measures at DP-001 and DP-002 have proven to be effective under most of the conditions we see around the year at those outfalls.

Maintenance of settling ponds and rock berms at DP – 001 and DP-002 was performed back in July by Minillas Contractor personnel.

12. *"As shown in photograph 741 , there was a light sheen in trap locating at Essroc fueling area. Mr. Colon said it would be cleaned up with sorbent pads prior to any discharge."*

At ESJ no water is released from any dike without prior inspection and corresponding action. Dike drainage forms are filled accordingly.

13. *"The used oil area near maintenance shop, has sludge in it, but is kept closed but it appears that cleaning of this sludge is needed. See photo 765 for more details."*

    Maintenance personnel were notified of this issue immediately after the inspection and the cleaning was scheduled.

14. *"The Rock Berms tributary to Stormwater Outfall No. 1 (DPOO I) (which drains Quarry Area No. 6) were in need of cleaning. Mr. Colon said that they would ask their quarry contractor, Minillas to clean in July. Please provide to the EPA the status of such cleaning efforts."*

    Maintenance of settling ponds and rock berms at DP – 001 and DP-002 at the quarry stormwater outfalls was performed by Minillas Contractor personnel back in July. Sediments were removed from the settling ponds and rocks at the rock berms were replaced where needed.

15. *"Please provide to the EPA the electronic version of Essroc' s most recent Stormwater Pollution Prevention Plan (SWPPP)."*

    ESJ SWPPP was reviewed and updated in August prior to the MSGP 2015 e-NOI submission. An electronic copy of the most recent SWPPP will be e-mailed to Eng. Lantner.

16. *"Essroc's laboratory, Sanco Laboratories, is using SM 4500 CN- E for Free Cyanide analysis under the Permit. However this does not appear to be a 40 CFR Part 136 approved method for free cyanide See Table Below. Please have the laboratory verify that it is using the correct analytical methods for Free Cyanide."*

    Items 8, 9 and 16 were forwarded to Mr. Victor Pagan from Sanco Labs for comments. As soon as they are received we will submit them accordingly.

Essroc San Juan is committed to comply with all regulations applicable to its operations. Please let us know if you have any questions or comments regarding the information herein submitted. Don't hesitate to contact me at your best convenience.

Cordially,

Jose Uriol
General Manager and VP
Essroc San Juan

ATTACHMENT A

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November 16, 2015

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Re: US v. ESSROC San Juan Inc.
DOJ No. 90-5-2-1-08412

To whom it may concern:

As we are required by item 13(c) of Section V (Compliance Requirements) of the Consent Decree (CD) of May 4, 2010 in the matter of reference, we are hereby submitting a preliminary Plan of Action (POA) to achieve compliance with effluent limitations for Coliforms (Total and Fecal). This POA has the main purpose to address non-compliance with Coliform limitations in or main discharge Outfall 001.

ESJ would like to call this a "Preliminary" plan because we see it more as a living document than as a final one. In fact, some of the actions outlined here have been already implemented and some other that are already in progress as evidence that, even when we are submitting this document as a formal plan today, actions are being taken to improve our discharge quality and achieve compliance with our permit requirements. Successive actions will depend on the efficiency of previous actions included in the plan. In the same manner, the order of actions can also change depending on some other factors like the

feasibility at a specific moment. Also, additional actions may be included or some that are already included may need to be removed from the plan as time goes.

Total and Fecal Coliforms

As part of all the efforts Essroc San Juan (ESJ) has been dealing with in order to maintain its effluent quality within specified limitations included in its discharge permit and referenced Consent Decree we have been evaluating options on how to manage foreign streams of water that comes into our property.

On previous studies performed by ESJ, we have identified three (3) principal components affecting coliform levels at ESJ Outfall 001; a natural component from the plant's watershed, an external stream from the neighbor Guarisco community and potential contributions from the plant's septic system. From those, only one (at this moment) can be actually controlled by ESJ direct action. The natural component from ESJ's watershed can't be controlled or affected in any way by an ESJ action so we are not including it on this plan. That being said, let's start our plan with actions related to control potential contributions from the plant's septic system.

A. ESJ's Septic System

As of today there are a total of nine (9) septic systems in operation at ESJ's site. As required by the consent decree, all of the septic systems have been modified to be just retention systems. Septic systems at the plant needs period service to prevent overflowing of sanitary fluids that may enter the stormwater stream and eventually discharge through Outfall 001.

Connection to PRASA

In the past, ESJ have evaluated the possibility to build a sewer system that can connect to nearby PRASA piping or direct connection to PRASA's Dorado Plant but unfortunately, at this moment, it is not a feasible option. The feasibility study was submitted to EQB and EPA

including details of the determination. In recent communications with Dorado Municipality personnel we have been informed that there are no plans in the near future to build a sewer system than can connect ESJ and nearby communities (Guarisco included) to existing PRASA piping.

Service

ESJ operates a program with a contracted external supplier to periodically service all septic systems in order to ensure septic tanks don't overflow to the stormwater runoff stream. Year to date, ESJ have removed a total of 224,000 gallons of sanitary fluids. On November 2015, ESJ is scheduled to receive four (4) services for the removal of an approximate total of 28,000 gallons of sanitary fluids. The program is reviewed and if we find there is more generation of fluids on a specific tank and it needs to be serviced more often or at a different frequency the program is modified accordingly.

Education

ESJ performs monthly communication meetings to share important information with employees on different aspects of the operation of the plant. Environmental is one of the themes discussed at every meeting. The operation of the septic systems has been discussed on communication meeting to educate employees on the importance of reporting any leak from restrooms equipment. Leaks on restroom can generate enough volume to overflow a septic tank requiring an emergency service.

When leaks are reported, they are scheduled for repair with priority.

Modification of the septic systems

During the course of 2015, ESJ has been modifying some of the septic systems because it has been found that stormwater runoff can actually get into a septic tank and overflow it during a rain event. Small modifications have taken effect to basically raise manhole level

from ground and prevent stormwater runoff from draining into the septic tanks with the potential to overflow it.

Two of the tanks have already being modified and we present pictures of the before and after for those:

Control Room Septic System

Before

After

Packing House Septic Tank

Before

After

ESJ will further evaluate the operation of the septic systems to determine if any other needs to be modified and will proceed accordingly.

Results from samples on the Influent L2 stream will let us know how efficient our actions have been. Further actions will be determined depending on the results. On the other hand, we need to consider there will always be a contribution from the natural component of the site's watershed.

B. <u>Guarisco community stream</u>

As you know, for years, ESJ has been receiving a stream of water from our neighbor Guarisco community. Originally set to be a stormwater runoff pipe, the "Guarisco Stream" has transformed to include a variety of different intakes that may include from food wastes to (most probably) sanitary wastes. This stream has been historically set to drain to our Lagoon 2 and mixing with ESJ's runoff before discharging through our outfall (001). ESJ's has assigned resources to analyze the stream. A study performed by Sanco Laboratories on December 2013, and that was submitted to EQB and EPA, showed the presence of high concentrations of coliform levels on the "Guarisco Stream". ESJ has definitely identified the "Gaurisco Stream" as probably the main contributor for coliform levels in our outfall and therefore is one of the main targets in our Plan of Action.

Generally speaking, our Coliform POA consists of four (4) different initiatives that are discussed below:

A. <u>Meeting with EQB and EPA to evaluate the possibility of a permit modification.</u>

Although ESJ knows that if the "Guarisco Stream" is not eliminated from our discharge it will not be possible to be able to comply with our coliform limits, it is also true that more than 95% of our Outfall 001 discharge is composed mainly of stormwater runoff. Coliforms occur naturally in nature and it is very common to find significant amount of coliforms in stormwater runoff samples specially when there has been some time without any rain event and then there is a significant rain event that generates discharge that is later sampled.

ESJ is surrounded by heavy vegetation areas and lots of living species (birds, reptiles, mammals and fish among other) made this area their habitat. All this is part of the natural component we have mentioned before and that is not controllable by means of ESJ actions.

On Tuesday, October 13th, ESJ's Environmental Engineer, Juan Colón Rivera met with Ms. Nivia Vélez at EQB's Water Quality Division in order to discuss and evaluate options to request a modification of the Water Quality Certificate (WQC) for Honda Creek. Honda Creek is the receiving body for ESJ's Outfall 001 discharge. As you may know, prior to the emission of a WQC, EQB sends a letter to the permit holder a letter to request proposed limits for its discharge permit if we want those to be different than those included in the Water Quality Rule. ESJ should use EQB's accepted procedures to demonstrate that the limits requested would not represent a violation to the local Water Quality Rule.

After further discussion with Ms. Vélez on this subject, we came to the conclusion that EQB's accepted procedures would not be applicable to ESJ's discharge because Honda Creek is an intermittent body of water that its only tributary is ESJ's outfall.

That being said, the possibility of a permit modification to include higher limits for Total and Fecal Coliforms is temporary excluded from this plan.

In turn, ESJ will request EQB/EPA to apply the interim limits until new options arise or modification projects can be completed at the site.

It is still pending discussion with EPA's CEPD Eng. Sergio Bosques to keep looking for alternatives on this subject.

B. <u>Construction of Sanitary Sewer from PRASA/Dorado Municipality</u>

This option has been amply discussed and, at this moment, a connection to PRASA for ESJ sanitary and neighbor Guarisco community is not feasible.

C. **Project to deviate "Guarisco Stream"**

One of the options to eliminate what is believed to be the main contribution to coliform levels in our discharge coliform levels is the rerouting of the Guarisco Stream. ESJ will look to reroute the actual stream by means of a pipe and discharge away or downstream from Outfall 001 without going into our settling pond no. 2. This is a project that will require at least three (3) phases:

1. **Study**

   ESJ needs to perform a hydrologic study to determine the volume of water that conveys from Guarisco to the channel in our facility. The results of this study will be used for the second phase of the project which is the design.

   ESJ has received proposals from three (3) different companies to perform this study and expects to generate an order to perform this study on early 2016.

2. **Design**

   As we have explained, with the results of the hydrologic study of the Guarisco stream ESJ will contact potential supplier for the design of pipe to convey Guarisco waters out of our facility.

3. **Construction**

   After the design is completed, ESJ will then proceed for the biding in order to complete the final phase of this project; the construction of the system that will eventually eliminate the contribution of the neighbor community in our water discharge quality.

ESJ has already had preliminary discussions on this subject with different potential suppliers for the design and construction phases of this project and agreed that the time frame for the completion would be no less than three (3) years considering that the construction will require permitting that can take even longer than that.

However, it is important to mention at this time that this project will help ESJ to achieve compliance with the permit requirements but in no way it will benefit the receiving body (Honda Creek) that

will keep receiving the discharges from Guarisco but only without being mixed with ESJ's Lagoon 2 waters. This issue was discussed with Eng. Lantner during his last visit back in May 2015.

D. **Water Treatment System for Lagoon 1 and/or 2.**

The other option that has been under evaluation in order to solve the coliforms issue in our discharge is the installation of a water treatment system in one or both of our settling ponds.

On the month of July, ESJ received the visit of a potential supplier for this service and is waiting for a proposal for the service of designing a treatment system focused on the elimination of coliforms. At this moment we have been exchanging information with the supplier in order to finish the proposal. In preliminary discussions with Engineers Héctor Camareno and Pedro Gautier, the treatment of preference for this application would be chlorination. ESJ will look closely at this proposal since, it is our position to install a treatment system only after all controls for the septic systems have been implemented and the rerouting of Guarisco stream is completed. Only then we will know if it will be really necessary to install a treatment system. In addition, the installation of a chlorination system at ESJ site will require the revision of the permit in order to include a new limit for residual chlorine in our discharge. However, we all know that even with the installation of a treatment system, its efficiency is not 100% guaranteed because of the variability on ESJ's outfall flow. It will be a big challenge to maintain an efficient operation of a chlorination system and comply with residual chlorine limit that, for Puerto Rico's surface waters is 0 mg/L.

Therefore, this option will only be considered after all other actions in this plan have been completed and no other option is available. As we said before, it has to be evaluated very closely because it may raise more cons than pros for our operation.

Conclusion

Once again, the actions included in this plan are actions that are already ongoing. We prepare this plan in writing to document what ESJ has already been doing in order to find a solution to the coliforms issue in our outfall.

ESJ is committed with compliance with all its applicable regulatory requirements and will keep updating and upgrading its operations in order to achieve compliance where needed. Please feel free to contact myself at your earliest convenience in case you have any question or comments regarding the information herein included.

Cordially,

José Uriol
General Manager & VP
Essroc San Juan, Inc.

ATTACHMENT B

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Italcementi Group

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November 16, 2015

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Chief, Compliance Section
Water Compliance Branch
U.S. Environmental Protection Agency
Region 2
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New York, New York 10007-1866

Re: US v. ESSROC San Juan Inc.
DOJ No. 90-5-2-1-08412

To whom it may concern:

As we are required by item 15 (b) of Section V (Compliance Requirements) of the Consent Decree (CD) of May 4, 2010 in the matter of reference, we are hereby submitting a Plan of Action (POA) to achieve compliance with effluent limitations for Total Suspended Solids (TSS). This POA has the main purpose to address non-compliance issues related with TSS in our main discharge Outfall 001.

Introduction

At Essroc San Juan (ESJ) the principal source for sediments that can gain access to stormwater runoff are raw material storage piles and unpaved roads from parts of the quarry that drain to Outfall 001. As for every cement plant, controlling sediments to prevent stormwater contamination is a big challenge. ESJ is no exception to this and it has implemented a series of control measures to prevent excessive stormwater runoff

contamination with sediments from material at its operation site. Drain channels, settling ponds, a filtration system and the reuse of collected water are only some examples of the control measures implemented at the site to control sediment erosion.

Generally speaking, control measures at the site have proven to be effective for most of the conditions we see during the year. On 2015, and up to the results from samples taken on October 20th, the average for the results of all the samples analyzed for Total Suspended Solids is 32 mg/L. Only 4 samples have exceeded the permit limit. The last sample to exceed was from June 22nd, more than four (4) months ago.

Although the control measures have been effective most of the time, it has happened that three (3) exceedances have occurred within a three month period. For that reason, and as required by item 15(b) of section V of the Consent Decree, ESJ has prepared this Plan of Action to address non compliances related to TSS levels on its main discharge Outfall 001.

It is important to mention that the actions included on the plan are actions that are already in place but that may require some modifications to make them be more effective. It is also important to understand that control measures at the plant have limited capacity and will perform well under most of the events we have around the year. There is always the potential to receive unusually intense rain events generating runoffs that may exceed the effective capacity of the control measures.

Actions

A. Controlled drain of Lagoon 1

Since last May, ESJ started to let Lagoon 1 to drain constantly and in a controlled manner into Lagoon 2. This action lets us take advantage and maximize the benefit of the filtration capacity of the Lagoon Enhanced System (LES). The LES is composed from a total of 14 gabions, each one covered with filter cloth. Controlling the flow to a rate between 50 and 90 gpm will ensure maximum benefit of the filtration capacity of the system.

In addition, maintaining a constant flow out of Lagoon 1 serves as a dual purpose. Having space available at Lagoon1 will increase potential residence time and achieve sedimentation prior to be discharge to Lagoon 2 through the gabions channel. ESJ will maintain Lagoon 1 level as low as practicable to be able to catch the runoff "first flush" and let it settle prior to discharge it to Lagoon 2.

This practice was implemented on early May and has been established as the regular operation for the settling ponds. Outfall 001 discharge, lagoon levels and performance of the Lagoon Enhanced System are verified on a daily basis by our Environmental Engineer. If any change on the operation is required he takes care and follow up for results.

B. Maintenance of the Lagoon Enhance System

Lagoon Enhance System is maintained periodically but no less than three (3) times per year. Inspection routines at the plant require that LES to be inspected at least once a month. Although its operation is verified almost on a daily basis, inspections are documented monthly and maintenance is scheduled accordingly.

During maintenance, filter cloth at all 14 gabions is replaced. The channel is effectively cleaned of sediment and vegetative debris. Minor repairs to gabions are also performed during periodic maintenance. If mayor modifications or repairs are needed, those are reported and scheduled accordingly.

C. Periodic cleaning of stormwater drain channels and catch basins.

ASJ's stormwater conveying system is composed of drain channels of a total length of over 1,500 meters. Some of the channels contain built in dams to slow down runoff flow and there are also smaller intermediate settling ponds to collect coarser sediment. During the year, sediment is collected on the drain channels reducing their effective capacity to collect additional sediments.

Cleaning of the drain channels requires the contract of an external supplier with specialized heavy equipment to reach to the channels and remove sediments. ESJ is

committed to service and maintain the drain channels periodically and as needed but not less often than once a year. Cleaning of the drain channels will increase the capacity of collect sediments before they get to either of the settling ponds.

D. **Raw material piles sediment erosion control**

At ESJ there has always been conscious operation regarding the control of sediments on runoff streams. Most of the materials are stored inside roofed buildings (raw materials and clinker) or completely enclosed structures like silos (raw meal and cement). For those materials stored in piles outside there is a requirement to be covered by berms and, in some cases, tarps are used to cover the piles to prevent sediment runoff. Those practices help contain and reduce any sediment that may be dragged by stormwater runoff.

Sediment erosion controls are required to be implemented and maintained by a local EQB rule. Monthly inspections are performed on ESJ's extraction and raw materials storage areas. Inspections are required to be performed by an external certified engineer and reports are submitted to EQB on a monthly basis.

ESJ is committed with compliance with all its applicable regulatory requirements and will keep updating and upgrading its operations in order to achieve compliance where needed. Please feel free to contact myself at your earliest convenience in case you have any question or comments regarding the information herein included.

Cordially,

José Uriol
General Manager & VP
Essroc San Juan, Inc.